

**Final**

**Technical Support Document**

Approval of

the Serious Area PM-10 State Implementation Plan  
for the Maricopa County PM-10 Nonattainment Area  
Annual and 24-Hour PM-10 Standards

and

MCESD Rules 310 and 310.1 and  
Maricopa County Residential  
Woodburning Restriction Ordinance

**January 14, 2002**

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**Disclaimer**

We have made every effort to correctly describe the contents and provisions of the metropolitan Phoenix serious area plan in this TSD. Any errors or omissions in the descriptions are ours and do not change or revise the content of the plan. We recommend that any one reviewing this TSD also obtain a copy of the plan and consult it directly as to its contents and provisions.

**Note on Page Numbers in the Table of Content and Cross-References**

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**Technical Support Document  
Metropolitan Phoenix Serious Area PM-10  
State Implementation Plan**

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# **Technical Support Document Serious Area PM-10 State Implementation Plan for the Maricopa County PM-10 Nonattainment Area**

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## **Section 1 -- Introduction, Findings, and Background**

### ***This Document's Purpose***

In this technical support document, we provide information supporting our approvals of the serious area plan for the Maricopa County (metropolitan Phoenix, Arizona) PM-10 nonattainment area.

In this technical support document, we

- document our completeness determination on the revised Maricopa Association of Governments (MAG) serious area PM-10 plan submittal of February 16, 2000,
- document our finding on the adequacy of the transportation conformity budgets in the revised MAG serious area PM-10 plan submittal of February 16, 2000,
- summarize the statutory and policy requirements for serious area PM-10 nonattainment area plans and for state implementation plans in general
- describe our analysis of the serious area PM-10 plan for the metropolitan Phoenix area including all submittals for the plan received to date and the control measures and rules relied on to demonstrate compliance with Clean Air Act requirements,
- provide our conclusions on the approvability of plan and the control measures and rules it relies on, and
- respond to comments received on our April 13, 2000 and October 2, 2001 proposals to approve the plan.

### ***Proposed Approvals of the Metropolitan Phoenix Serious Area PM-10 Plan***

There are two PM-10 national ambient air quality standards (NAAQS): an annual standard of 50  $\mu\text{g}/\text{m}^3$  and a 24-hour standard of 150  $\mu\text{g}/\text{m}^3$ . The metro Phoenix serious area PM-10 plan addressed both standards. We proposed to approve the plan's provisions for attaining the annual PM-10 standard on April 13, 2001 (65 FR 19964) and its provisions for the 24-hour standard on October 2, 2001 (66 FR 50252).

### ***Summary of EPA's Actions on the Metropolitan Phoenix Serious Area PM-10 Plan***

#### **Adequacy Finding on the Transportation Conformity Budget**

We found the conformity budget in the revised MAG PM-10 plan adequate for transportation conformity purposes. See Letter, David Howekamp, EPA Region 9 to Jacqueline



Schafer, ADEQ, and James Bourey, MAG, dated March 30, 2000. A copy of this letter can be found in the docket.

Final Actions on the Serious Area Plan and Maricopa County Rules

We are approving the metropolitan Phoenix serious area plan under section 110(k)(3) and part D of the Clean Air Act. Table 1-1 summarizes our actions by CAA requirement.

<b>TABLE 1-1 ACTIONS ON THE METROPOLITAN PHOENIX SERIOUS AREA PM-10 PLAN</b>	
<b>WE APPROVING THIS REQUIREMENT...</b>	<b>UNDER THESE SECTION OF THE CLEAN AIR ACT...</b>
Emissions inventory	172(c)(3)
Implementation of RACM/BACM	189(a)(1)(C) and 189(b)(1)(B)
Impracticability of attainment by 2001 demonstration	189(b)(1)(A)
Attainment by the expeditious alternative date	189(b)(1)(A)
BACT on major sources of PM-10 precursors	189(e)
RFP/Milestone demonstration	172(c)(2) and 189(c)
Attainment date extension request	188(e)
Contingency measures	172(c)(9)
Transportation conformity budget	176(c)
MCESD Rules 310 and 310.01 (February 16, 2000)	110, 189(a)(1)(C) and 189(b)(1)(B)
Maricopa County Residential Woodburning Restrictions Ordinance (November 17, 1999)	110 and 189(b)(1)(B)
Commitments by the jurisdictions of Maricopa County to implement PM-10 control measures	110 and 189(b)(1)(B)

### ***Summary of the Metropolitan Phoenix Serious Area PM-10 Plan***

Elements of the serious area PM-10 plan for Phoenix area (Phoenix plan, Phoenix serious area plan) are found principally in three documents: the 1997 Microscale plan, the revised 1999 MAG plan, and the 2001 Best Management Practices submittal. The latter two documents are the subject of this action and are described in more detail below in order of importance. We have already acted on the Microscale plan, see 62 FR 41856 (August 4, 1997).

The first document is the *Revised Maricopa Association of Governments 1999 Serious Area Particulate Plan for PM-10 for the Maricopa County Nonattainment Area*, February 2000. This plan was developed by the Maricopa Association of Governments (MAG), the lead air quality planning agency in Maricopa County. The Arizona Department of Environmental Quality (ADEQ) submitted this plan as a revision to the Arizona State Implementation Plan (SIP) on February 16, 2000. We received the plan on February 23, 2000. We refer to this plan in this document as the MAG plan or the revised MAG plan.

ADEQ's submittal of the revised MAG plan replaces two earlier submittals:

- The July 8, 1999 submittal of *Maricopa Association of Governments' 1999 Serious Area Particulate Plan for PM-10 for the Maricopa County Nonattainment Area*, June 1999.
- The December 27, 1999 submittal of the draft *Revised Maricopa Association of Governments' 1999 Serious Area Particulate Plan for PM-10 for the Maricopa County Nonattainment Area*, December 1999.

The second document is the *Maricopa County PM-10 Serious Area State Implementation Plan Revision, Agricultural Best Management Practices (BMP)*, June 2001, submitted in draft on April 26, 2001 and final on June 13, 2001. This SIP revision contains revisions to the 24-hour standard attainment and reasonable further progress demonstrations as well as to the contingency measure provisions in the MAG plan. ADEQ submitted this SIP revision on June 13, 2001. We refer to this document as the BMP TSD.

As submitted, the revised MAG plan consists of the main plan document, four volumes of technical appendices, and four volumes of commitments from various agencies to implement PM-10 controls. The plan contains a 1994 inventory and uses the urban airshed model/limited chemistry version (UAM/LC) to model regional air quality in 1995 as a base year and in 2006 as the attainment year, but relies on air quality modeling performed in the Microscale plan to evaluate 24-hour exceedances.

The MAG plan, as revised by the 2001 BMP TSD includes a BACM analysis and a demonstration that attainment by 2001 is impracticable for both the 24-hour and annual PM-10 standards. It also includes, again for both PM-10 standards, the State's request for a five year

extension of the attainment date, a demonstration that the plan provides for the most stringent measures, and a demonstration of attainment by December 31, 2006.

The technical analysis in the plan shows that the principal sources contributing to both 24-hour and annual PM-10 exceedances are fugitive dust sources, such as construction sites, vacant lots, paved and unpaved roads, agricultural sources, and similar sources. The principal controls relied on for attainment of both standards are controls on these fugitive dust sources.

The BMP TSD includes a background document which provides the BACM demonstration for agricultural sources for both standards, a revised demonstration of attainment and RFP for the 24-hour standard as well as revisions to the contingency measure provisions for both standards. It also includes documentation quantifying emission reductions from the BMPs and documentation related to implementing the BMPs.

A third document was also submitted by Arizona as part of the Phoenix serious area plan. This document is the December 11, 1997 submittal of *Serious Area Committed Particulate Control Measures for PM-10 for the Maricopa County Nonattainment Area and Support Technical Analysis*, MAG, December 1997. This submittal contains control measures that are also relied on in the MAG plan; these control measures were duplicated in the revised 1999 MAG plan. We refer to this document as the 1997 BACM submittal. The 1997 BACM submittal contains five volumes of commitments from the Maricopa area jurisdictions to a number of PM-10 control measures.

We are also approving the most recent revisions to Maricopa County Environmental Services Department (MCESD) Rule 310 Fugitive Dust Sources (revised February 16, 2000) and Rule 310.01, Fugitive Dust from Open Areas, Vacant Lots, Unpaved Parking Lots, and Unpaved Roadways (revised February 16, 2000) and Maricopa County's Residential Woodburning Restrictions Ordinance (revised November 17, 1999). These revised rules were submitted by ADEQ on March 2, 2000 (Rules 310 and 310.01) and January 28, 2000 (woodburning ordinance). Finally, we are approving revised commitments by MCESD to strengthen its fugitive dust rules. This commitment was adopted on December 18, 2001 and submitted on January 9, 2002.

### ***History of PM-10 Plans for the Metropolitan Phoenix Area***

The Phoenix serious area plan is the latest in a series of PM-10 plans that have been developed for the Phoenix area. Below, we provide a time line of the most important events related to PM-10 planning in the area in order to illustrate the relationship between these earlier plans and the revised MAG serious area plan.

July 1, 1987

EPA sets the annual and 24-hour PM-10 standards (52 FR 24672).

August 7, 1987	The Phoenix area, with its strong likelihood of violating the new PM-10 standards, is designated a Group I PM-10 area (52 FR 29384).
November 15, 1990	The Phoenix area is designated as nonattainment and classified as moderate for PM-10. CAA section 107(d)(4)(B)(i) and 188(a). 56 FR 11101 (March 15, 1991).
November 15, 1991	Arizona submits the <b>MODERATE AREA PM-10 PLAN</b> for the Phoenix area on the date required by the Clean Air Act.
March 4, 1992	We find the <b>MODERATE AREA PM-10 PLAN</b> incomplete because it was not appropriately subject to public hearing and because the State does not have sufficient authority to enforce the plan. This finding starts the 18-month sanctions clock and 24-month clock to issue a <b>MODERATE AREA PM-10 FEDERAL IMPLEMENTATION PLAN (FIP)</b> .
August 11, 1993	Arizona submits the first revision to the <b>MODERATE AREA PM-10 PLAN</b> .
September 7, 1993	We find the revised <b>MODERATE AREA PM-10 PLAN</b> complete, stopping the sanction clocks; however, the <b>MODERATE AREA PM-10 FIP</b> clock continues.
March 3, 1994	Arizona submits the second revision to the <b>MODERATE AREA PM-10 PLAN</b> .
June 28, 1994	ACLPI sues to enforce the FIP obligation which became ripe on March 4, 1994. We settle this case with an agreement to act on the <b>MODERATE AREA PM-10 PLAN</b> by March 1, 1995. <i>Ober v. Browner</i> , No. CIV 94-1318 PHX, PGR, Consent Decree, March 6, 1995.
July 28, 1994.	We propose to approve the <b>MODERATE AREA PM-10 PLAN</b> . 59 FR 38402.
December 31, 1994	Attainment date for moderate nonattainment PM-10 areas like Phoenix to attain. However, on this date the Phoenix area is still violating both the annual and 24-hour PM-10 standards.
April 10, 1995	We approve the <b>MODERATE AREA PM-10 PLAN</b> . 60 FR 18010. Shortly afterwards, ACLPI petitions the 9th Circuit to review our approval.

May 10, 1996	We find the Phoenix area failed to attain the PM-10 standards by the moderate area attainment date. The area is reclassified to serious, effective June 10, 1996. 61 FR 21372. The <b>SERIOUS AREA PM-10 PLAN</b> is due December 10, 1997.
May 14, 1996	The 9th Circuit vacates our approval of the <b>MODERATE AREA PM-10 PLAN</b> finding that the plan did not address the 24-hour PM-10 standard and that we had failed to provide the required opportunity for comment during our rulemaking process on the RFP and RACM demonstrations for the annual standard. The Court orders us to require the State to address the moderate area requirements for the 24-hour standard and to provide the needed opportunity to comment. <i>Ober v. EPA</i> , 84 F.3d 304 (9th Cir. 1996).
September 18, 1996	To comply with the court's order, we send a letter to the State requiring the submittal by May 9, 1997, of a plan, the <b>MICROSCALE PLAN</b> , addressing the serious area requirements for the 24-hour PM-10 standard at five monitors. Since the area has been reclassified to serious, we determine that the most efficient use of resources is to require the State to address the serious area plan requirements on an expedited schedule instead of requiring them to go back and address the moderate area requirements.
October 26, 1996	To comply with the court's order for additional opportunity for public comment, we repropose approval of the <b>MODERATE AREA PM-10 PLAN</b> as it relates to the annual standard. 61 FR 54972
November 29, 1996	We settle again with ACLPI regarding our FIP obligation. This time we agree to act on the <b>MICROSCALE PLAN</b> by July 18, 1997 and, if we disapprove the plan, promulgated a <b>MODERATE AREA PM-10 FIP</b> by July 18, 1998. <i>Ober v. Browner</i> , No. CIV 94-1318 PHX, PGR, Consent Decree, November 29, 1996.
May 9, 1997	Arizona submits the <b>MICROSCALE PLAN</b> which evaluates 24-hour exceedances at four monitors. The plan finds that 24-hour exceedances are principally caused by fugitive dust from construction, agriculture, unpaved roads and parking lots, and disturbed vacant land.
August 4, 1997	We approve in part and disapprove in part the <b>MICROSCALE PLAN</b> . The disapprovals are because the plan did not provide BACM for agricultural sources, unpaved roads, unpaved parking lots, and disturbed vacant lots. The partial disapprovals mean we will have to issue a <b>MODERATE AREA PM-10 FIP</b> . 62 FR 41856.

December 10, 1997	The <b>SERIOUS AREA PM-10 PLAN</b> is due. Arizona submits measures but nothing else.
February 6, 1998	We find the State has failed to submit the <b>SERIOUS AREA PLAN</b> , starting new sanction clocks and a <b>SERIOUS AREA PM-10 FIP</b> clock. 63 FR 9423 (February 25, 1998)
August 3, 1998	We issue the <b>MODERATE AREA PM-10 FIP</b> which includes a federal fugitive dust rule addressing unpaved roads, unpaved parking lots, and disturbed vacant lots and a commitment to develop agricultural controls. At the same time, we disapprove the annual standard attainment and RACM demonstrations in the <b>MODERATE AREA PM-10 PLAN</b> . The disapprovals start another set of sanction clocks, the first of which will go off on March 2, 2000 and second on September 2, 2000. 63 FR 41326.
June 29, 1999	We replace the commitment to develop agricultural controls in <b>MODERATE AREA PM-10 FIP</b> with a State commitment to adopt BACM for the agricultural sources. 64 FR 34726
July 8, 1999	State submits the <b>SERIOUS AREA PM-10 PLAN</b> addressing both the 24-hour and annual PM-10 standards on a regional basis.
August 4, 1999	We find the <b>SERIOUS AREA PM-10 PLAN</b> complete. The finding stops the sanction clocks running because of the February 6, 1998 failure to submit finding but does not stop sanction clocks running because of the August 3, 1998 disapprovals.
November 9, 1999	We notify the state that additional work needs to be done on the <b>SERIOUS AREA PM-10 PLAN</b> in order for us to approve it and for the Phoenix area to avoid sanctions.
December 1, 1999	We find that the transportation conformity budget in the <b>SERIOUS AREA PM-10 PLAN</b> is inadequate because the plan will not result in attainment. The inadequacy determination is published on December 10, 1999 at 64 FR 69266.
February 23, 2000	We receive the revised <b>SERIOUS AREA PM-10 PLAN</b> .
March 2, 2000	The Clean Air Act 2:1 offset sanction goes into place. The sanction is the result of the August 3, 1998 disapprovals of the attainment and RACM demonstrations in the <b>MODERATE AREA PM-10 PLAN</b> .
March 29, 2000	We find that the transportation conformity budget in the revised <b>SERIOUS AREA PM-10 PLAN</b> is adequate. The adequacy determination is published on April 6, 2000 at 65 FR 18101.

April 13, 2000	We propose to approve the revised <b>SERIOUS AREA PM-10 PLAN'S</b> provisions for attaining the annual standard. 66 FR 19964 We also issue an interim final determination that Arizona has corrected the deficiencies that resulted in sanctions. This interim final determination stays the sanctions. 65 FR 19962
July 11, 2000	Arizona submits the <b>AGRICULTURAL BEST MANAGEMENT PRACTICES RULE</b> .
March 23, 2001	The 9th Circuit upholds our use in the <b>MODERATE AREA PM-10 PLAN</b> of a de minimis source category exemption from the RACM requirement. <i>Ober v. Whitman</i> , 243 F.3d 1190 (9th Cir. 2001)
April 26, 2001	Arizona submits in draft form the information quantifying the impact of the agricultural best management practices general permit rule, a revised demonstration of attainment for the 24-hour standard; and revisions to the contingency measure provisions in the MAG plan.
June 13, 2001	Arizona submits in final form the information quantifying the impact of the agricultural best management practices general permit rule, a revised demonstration of attainment for the 24-hour standard; and revisions to the contingency measures in the MAG plan.
June 29, 2001	We propose to approve the <b>AGRICULTURAL BEST MANAGEMENT PRACTICES GENERAL PERMIT RULE</b> and to find the rule is RACM for agricultural sources. 66 FR 34598
October 2, 2001	We propose to approve the <b>SERIOUS AREA PM-10 PLAN'S</b> provisions for attaining the 24-hour standard. 66 FR 50252.
October 11, 2001	We approve the <b>AGRICULTURAL BEST MANAGEMENT PRACTICES GENERAL PERMIT RULE</b> and find that the rule is RACM for agricultural sources in Maricopa County. 66 FR 51869.

### ***Relationship of the 1997 Microscale Plan to the Revised 1999 MAG Plan and BMP SIP***

Most of the technical evaluation that underlies the 24-hour standard provisions in the Phoenix serious area plan is contained in the *Plan for Attainment of the 24-hour PM-10 Standard - Maricopa County PM-10 Nonattainment Area*, ADEQ, May, 1997. This plan, known as the Microscale plan, was submitted to us in May 1997. It addresses exceedances of the 24-hour PM-10 standard at four Phoenix area monitoring sites: Salt River, Maryvale, Gilbert, and West Chandler.

The Microscale plan was developed in response to an order of the Ninth Circuit Court of Appeals in *Ober v. EPA*, 84 F.3d 304 (9th Cir. 1996) (*Ober I*). In *Ober I*, the court found that Arizona was required to address the CAA's moderate area requirements for RFP, RACM and attainment or impracticability for both the 24-hour and the annual PM-10 standards in its moderate area plan but had failed to do so for the 24-hour standard. To remedy this failure, the court required EPA to require Arizona to submit separate moderate area RACM, RFP, and attainment demonstrations for the 24-hour standard. 84 F.3d at 311.

To respond to the court's order, we, in consultation with Arizona, decided that the State would incorporate the moderate area plan elements for the 24-hour standard into the serious area plan it was then in the process of developing, but would split that planning effort into two related parts: a limited, locally-targeted plan (the Microscale plan) meeting both the moderate and serious area requirements for the 24-hour standard to be submitted by May 9, 1997 and a full regional plan meeting those requirements for both the 24-hour and annual standards to be submitted by December 10, 1997. Thus, the microscale and regional plans taken together would satisfy both the moderate area requirements for the 24-hour standard and the serious area planning requirements for both standards. See letter, Felicia Marcus, Regional Administrator, EPA Region IX, to Russell Rhoades, Director, ADEQ, September 18, 1996.

ADEQ submitted the Microscale plan in May, 1997. The plan contained a complete evaluation of the 1995 exceedances of the 24-hour standard at the four sites. This evaluation included development of local, day-specific inventories and dispersion modeling to evaluate source contribution to each exceedance at each site. This evaluation showed that the primary contributors to 24-hour exceedances in the Phoenix area are local fugitive dust sources such as construction sites, agricultural fields, vacant lots, unpaved roads and parking lots, and earthmoving operations. The Microscale plan also described the type of controls necessary to show attainment at each site although the plan only assured the implementation of such controls on construction-related sources.

We approved the Microscale plan in part and disapproved the plan in part on August 4, 1997 (62 FR 41856). We approved the attainment and reasonable further progress (RFP) demonstrations for the Salt River and Maryvale sites because the plan demonstrated expeditious attainment at these sites; however, we disapproved these demonstrations for the West Chandler and Gilbert sites because the plan did not demonstrate attainment at them. Because there are already approved demonstrations at the Salt River and Maryvale sites, ADEQ has focused its subsequent microscale work on developing approvable demonstrations for the Gilbert and West Chandler sites.

To evaluate the provisions for the 24-hour PM-10 standard in the Phoenix serious area PM-10 plan, we are relying to a large extent on our previous evaluation of the Microscale plan. Except for our findings related to the implementation of BACM, we are not reevaluating those



24-hour provisions that we have already found adequate or have approved as part of our actions on the Microscale plan.

### ***Clean Air Act Sanctions on the Phoenix Area***

Our 1998 disapprovals of parts of the MAG moderate area plan started sanction clocks under CAA section 179(a). Under section 179(a), once we disapprove a SIP provision because it fails to meet a CAA requirement, a State has 18 months to correct the deficiency that resulted in the disapproval before the first of two sanctions goes into place. If the state still has not corrected the deficiency with 24 months, the second sanction goes into place.

The two CAA sanctions are a limitation on certain highway approvals and funding and an increase in the offset ratio to 2 to 1 for any major new stationary source or major modification. See CAA section 179(b). Our sanction regulations provide that the first sanction to be imposed is the offset ratio unless we have established at the time of the disapproval that the highway sanction will be first. 40 CFR 52.31.

On August 3, 1998, we disapproved the RACM and attainment demonstrations for the annual standard in the MAG moderate area plan. 63 FR 41326. These disapprovals became effective 30 days later on September 2, 1998, starting the sanctions clocks. The first of these sanction clocks expired on March 2, 2000 and the 2:1 offset sanction is now in place in the Phoenix area. The second sanction clock for the highway funding limitations is set to expire on September 2, 2000.

Under section 179(a) and our sanctions regulations at 40 CFR §52.31(d)(1), we must approve a SIP revision that corrects the deficiencies to permanently end the sanctions clocks and lift any imposed sanctions. However, we may temporarily stay the clocks and any imposed sanctions if we propose to approve a SIP revision that corrects the deficiencies and have issued an interim final determination that the State has corrected the deficiencies. 40 CFR §52.31(d)(2)(i).

In a rule published concurrently with the proposal on the annual standard provisions, we issued an interim final determination that Arizona has more than likely corrected the deficiencies that resulted in our August 1998 disapprovals of the RACM and attainment demonstrations for the annual standard in the MAG moderate area plan. See 65 FR 19964 (April 13, 2000). This interim final determination stayed the offset sanction and deferred the highway sanction when it become effective on April 13, 2000.

### ***Corrections to the 24-Hour Attainment Demonstration for the Salt River Area***

As part of our 1997 action on the Microscale plan, we approved the serious area attainment demonstration for the 24-hour standard at the Salt River monitoring site. See 62 FR

41856, 41862. The Salt River monitoring site is located in southern Phoenix along the Salt River. According to this approved attainment demonstration, the site should not have violated the 24-hour PM-10 standard after May, 1998. See 62 FR 31026, 31035. The site, however, continues to violate the standard.

Because there is already an approved serious area plan attainment demonstration, the remedy under the CAA for correcting this demonstration is for EPA to issue a formal request to the State to revise its SIP pursuant to section 110(k)(5), a process known as a "SIP call." We will be proposing that SIP call soon.

The Salt River site is an industrial site and its 24-hour exceedances are likely due in large part to the industrial sources that surround it. This is in marked contrast to the rest of the nonattainment area where 24-hour exceedances are almost exclusively due to windblown dust. The Phoenix serious area plan provisions that we discuss in this TSD are sufficient to address 24-hour exceedances outside of the Salt River area. These plan provisions, however, do not address 24-hour exceedances at the Salt River site because the attainment demonstration for that site is already approved. Because of this approved attainment demonstration and the fact that the plan is adequate to meet the statutory requirements for the rest of the nonattainment area, the issues with the Salt River attainment demonstration do not affect the approval of the balance of the Phoenix serious area plan.

### ***Apache Junction***

The Maricopa PM-10 nonattainment area covers the eastern portion of Maricopa County as well as town of Apache Junction in Pinal County. The metropolitan Phoenix serious area plan covers only the Maricopa County portion of this nonattainment area. ADEQ developed a separate plan for Apache Junction which was submitted on August 4, 1999. We will act on the Apache Junction plan in separate rulemaking.

### ***Who to Contact for More Information***

For more information on this action, please contact:

Frances Wicher  
Office of Air Planning (AIR-2)  
Air Division, U.S. EPA-Region 9  
75 Hawthorne Street  
San Francisco, California 94105  
(415) 947-4155

[wicher.frances@epa.gov](mailto:wicher.frances@epa.gov)

## **Section 2 – The Completeness Determination**

### ***Completeness Determinations***

The first step we take after receiving a SIP submittal is to determine if it is complete. CAA section 110(k)(1)(B) requires that we review all SIPs and SIP revisions for completeness within 60 days of receipt. The completeness review allows us to quickly determine if the submittal includes all the necessary items and information we need to take action on it.

We make completeness determinations using criteria we have established in 40 CFR part 51, Appendix V. These criteria fall into two categories: administrative information and technical support information. The administrative information provides documentation that the State has followed basic administrative procedures during the SIP-adoption process and thus we have a legally-adopted SIP revision in front of us. The technical support information provides us the information we need to determine the impact of the proposed revision on attainment and maintenance of the air quality standards.

We notify a state of our completeness determination by letter. A finding of completeness does not approve the submittal as part of the SIP nor does it indicate that the submittal is approvable. It does start the 12 month clock we have to act on the SIP submittal. See CAA section 110(k)(2).

### ***Completeness Determination on the Revised MAG Plan***

We found ADEQ's February 16, 2000 submittal (received on February 23, 2000) of the final revised MAG serious area PM-10 plan complete. We notified the State of our completeness determination on February 25, 2000. See Letter, David P. Howekamp, EPA, to Jacqueline Schafer, ADEQ.

We also found ADEQ's June 13 2001 submittal of the BMP plan complete. We notified the State of our completeness determination on August 10, 2001. See letter, Jack Broadbent, EPA to Jacqueline Schafer, ADEQ regarding completeness of the June 13, 2001 submittal. Finally, we found the January 9, 2002, submittal of the revised Maricopa County commitments complete on January 14, 2002. See letter, Jack Broadbent, EPA to Jacqueline Schafer, ADEQ, regarding completeness of the January 9, 2002 submittal.

We document in Table 2-1 and Table 2-2 our findings that the revised MAG plan and BMP plan, respectively, meet each of the completeness criteria in our regulations at 40 CFR part 51, appendix V. We have also determined the plan includes all the elements required by the Clean Air Act for a serious area PM-10 plan. See Table 2-3.

We did not make a completeness finding on the December 10, 1997 submittal of the *Serious Area Committed Particulate Control Measures for PM-10 for the Maricopa County Nonattainment Area and Support Technical Analysis*, MAG, December 1997. Under CAA section 110(k)(6)(B), the submittal became complete by operation of law, on June 15, 1998, six months after we received it on December 15, 1997.

We also did not make a completeness finding on the April 26, 2001 submittal of the draft BMP plan because it was superseded by the June 13, 2001 submittal of the final plan. We have, however, documented its completeness below in Table 2-2.

<b>TABLE 2-1</b> <b>COMPLETENESS DETERMINATION FOR THE FEBRUARY 16, 2000 SUBMITTAL</b> <b>OF THE REVISED MAG SERIOUS AREA PM-10 PLAN</b>		
<b>THIS COMPLETENESS CRITERION...</b>	<b>Is...</b>	<b>BY THE SUBMITTAL IN...</b>
<b>Administrative Requirements</b>		
Letter submitting the plan from the Governor's designee	met	The cover letter for the submittal (Letter, Jacqueline E. Schafer (Director, ADEQ) to Felicia Marcus (Regional Administrator, US EPA - Region 9), February 16, 2000 "Submittal of the Revised Maricopa Association of Governments 1999 Serious Area Particulate Plan for the Maricopa County Nonattainment Area (February 2000)."
Evidence that the State adopted the plan (including adoption and effective dates)	met	The cover letter. Both adoption and effective dates are February 16, 2000.
Evidence that the State has the legal authority to adopt and implement the plan	met	For both ADEQ and MAG: A.R.S. §49-404 and §49-406(H) (Copies of these sections of the A.R.S., including 1999 revisions are enclosure 1 of the submittal.) For local jurisdictions: A.R.S. §9-239, §11-251, & §406(G) (Copies of the first two sections can be found in the attachment to the MAG resolution of adoption found in the Commitments for Implementation, Volume One, copy of the last A.R.S. section is in enclosure 1 of the submittal.)
A copy of the plan with certification	met	<i>Revised Maricopa Association of Governments 1999 Serious Area Particulate Plan for PM-10 for the Maricopa County Nonattainment Area</i> , February 2000. (enclosure 3 of the submittal). Certification of adoption by MAG is found in Appendix D, Exhibit 2 of the plan.

<b>TABLE 2-1</b> <b>COMPLETENESS DETERMINATION FOR THE FEBRUARY 16, 2000 SUBMITTAL</b> <b>OF THE REVISED MAG SERIOUS AREA PM-10 PLAN</b>		
<b>THIS COMPLETENESS CRITERION...</b>	<b>IS...</b>	<b>BY THE SUBMITTAL IN...</b>
		Certification of adoption by ADEQ is found in the cover letter.
Evidence that the State followed its applicable administrative procedures in adopting the plan	met for ADEQ	ADEQ is authorized to adopt the plan "in accordance with the rules adopted pursuant to §49-404." See §49-406(H). However, ADEQ was not required to adopt rules for adopting SIP revisions and did not. See §49-404. Therefore, no state APA rules exist for adoption of SIP revisions.
	met for MAG	Chapter 11 of the plan (note that MAG's process for developing and adopting the plan are MAG policies and not state regulations)
	met for local jurisdictions	Resolutions of adoption by the local jurisdictions of the Maricopa nonattainment area found in Chapter 12 of the plan.
Evidence of public notice	met	"Affidavit of Publication" <i>The Arizona Republic</i> , December 30, 1999 found in Appendix D, Exhibit 1 of the plan.
Evidence of public hearing	met	"Certification of Holding of Public Hearing," January 31, 2000 found in Appendix D, Exhibit 1 of the plan.
Public comments and the State's responses	met	Copies of public comments and a transcript of the two public hearings found in Appendix D, Exhibit 1 of the plan. "Response to the Public Comments on the Draft Revised MAG 1999 Serious Area Particulate Plan for PM-10 for the Maricopa County Nonattainment Area," found in Appendix D, Exhibit 1 of the plan. "Response to the Public Comments on the Draft MAG 1999 Serious Area Particulate Plan for PM-10 for the Maricopa County Nonattainment Area," found in Appendix D, Exhibit 1 of the plan.
<b>Technical Requirements</b>		
Identification of pollutants affected by the plan	met	throughout the plan

<b>TABLE 2-1</b> <b>COMPLETENESS DETERMINATION FOR THE FEBRUARY 16, 2000 SUBMITTAL</b> <b>OF THE REVISED MAG SERIOUS AREA PM-10 PLAN</b>		
<b>THIS COMPLETENESS CRITERION...</b>	<b>IS...</b>	<b>BY THE SUBMITTAL IN...</b>
Identification of the location of affected sources including area's designation and status of the attainment plan	met	Chapter 1 of the plan
Quantification of emissions from the affected sources from the plan	met	pp. 3-2 to 3-5, p. 8-4, and Appendix A, Exhibit 6 for regional emissions inventories Appendix C, Exhibit 3, Chapter 3 for the microscale inventories
Demonstration that the NAAQS and RFP are protected	met	pp. 8-11 to 8-14 and p. 8-20 of the plan
Modeling information required to support the proposed revision including supporting documentation	met	pp. 8-1 to 8-7, Appendix A, Exhibit 7, Appendix C, Exhibit 3.
Evidence, where necessary, that emission limitations, are based on continuous emission reduction technology	N/A	-----
Evidence that the plan contains emission limitations, work practice standards and record keeping/ reporting requirements, where necessary, to ensure emission levels	met	See Table 2-3 below.
Compliance/enforcement strategies including how compliance will be determined in practice	met	See Table 2-3 below.
Special economic and technological justifications required by applicable EPA policies, or an explanation of why such justifications are not necessary	met	BACM analysis: Chapter 9 of the plan Request for Attainment Date Extension: Chapter 10 of the plan
Plan addresses the elements required by the Act and EPA policy for serious area PM-10 plans	met	See Table 2-3 below.

<b>TABLE 2-2</b> <b>COMPLETENESS DETERMINATION FOR THE APRIL 26</b> <b>AND JUNE 13, 2001 SUBMITTALS</b> <b>OF THE AGRICULTURAL BEST MANAGEMENT PRACTICES</b>		
<b>THIS COMPLETENESS CRITERION...</b>	<b>Is...</b>	<b>BY THE SUBMITTAL IN...</b>
<b>Administrative Requirements</b>		
Letter submitting the plan from the Governor's designee	met	<p>Final submittal: the cover letter for the submittal (Letter, Jacqueline E. Schafer (Director, ADEQ) to Laura Yoshii (Acting Regional Administrator, US EPA - Region 9), June 13, 2001 <u>Submittal of State Implementation Plan revision for the Agricultural Best Management Practices Program in the Maricopa County PM-10 Nonattainment Area</u> (June 13, 2001).</p> <p>Draft submittal: the cover letter for the submittal (Letter, Jacqueline E. Schafer (Director, ADEQ) to Laura Yoshii (Acting Regional Administrator, US EPA - Region 9), April 26, 2001 <u>Submittal of Proposed State Implementation Plan revision for the Agricultural Best Management Practices Program in the Maricopa County PM-10 Nonattainment Area</u> (April 26, 2001).</p>
Evidence that the State adopted the plan (including adoption and effective dates)	met	<p>The June 13, 2001 cover letter. Both adoption and effective dates are June 13, 2001. For BMP rule, Arizona Administrative Register, volume 6, Issue 23, p. 2009 (June 2, 2000) found in Enclosure 3, Attachment 3.</p> <p>N/A for draft.</p>
Evidence that the State has the legal authority to adopt and implement the plan	met	A.R.S. §49-404 and §49-406(H) (Copies of these sections of the A.R.S., including 1999 revisions are enclosure 2 of the final submittal.)
A copy of the plan with certification	met	<p>Final submittal: <i>Maricopa County PM-10 Serious Area State Implementation Plan Revision, Agricultural Best Management Practices</i>, June 13, 2001, found in enclosure 3 of the submittal. Certification of adoption by ADEQ is found in the cover letter.</p> <p>Draft SIP: <i>Draft Maricopa County PM-10 Serious Area State Implementation Plan Revision, Agricultural Best Management Practices</i>, April 2001 found in enclosure 3 of the submittal.</p>

<b>TABLE 2-2</b> <b>COMPLETENESS DETERMINATION FOR THE APRIL 26</b> <b>AND JUNE 13, 2001 SUBMITTALS</b> <b>OF THE AGRICULTURAL BEST MANAGEMENT PRACTICES</b>		
<b>THIS COMPLETENESS CRITERION...</b>	<b>Is...</b>	<b>BY THE SUBMITTAL IN...</b>
Evidence that the State followed its applicable administrative procedures in adopting the plan	met	ADEQ is authorized to adopt the plan "in accordance with the rules adopted pursuant to §49-404." See §49-406(H). However, ADEQ was not required to adopt rules for adopting SIP revisions and did not. See §49-404. Therefore, no state APA rules exist for adoption of SIP revisions.
Evidence of public notice	met	"Affidavit of Publication" <i>The Arizona Republic</i> , April 30, 2001; "Affidavit of Publication" <i>The Tribune</i> , April 27, 2001; "Affidavit of Publication" <i>Arizona Capitol Times</i> , April 27, 2001. N/A for draft.
Evidence of public hearing	met	"Public Hearing Presiding Officer Certification," June 8, 2001 found in Enclosure 4, Attachment 5. N/A for draft.
Public comments and the State's responses	met	A transcript of the public hearing is found in Enclosure 4, Attachment 4. No comments were received. N/A for draft.
<b>Technical Requirements</b>		
Identification of pollutants affected by the plan	met	throughout the plan
Identification of the location of affected sources including area's designation and status of the attainment plan	met	"Final Revised Background Information," June 13, 2001 found in Enclosure 3 of the June 13, 2001 submittal.
Quantification of emissions from the affected sources from the plan	met	"Technical Support Document for Quantification of Agricultural Best Management Practices," URS and ERG, June 8, 2001 found in Enclosure 3, Attachment 5.
Demonstration that the NAAQS and RFP are protected	met	"Final Revised Background Information," June 13, 2001, pp. 6-8.
Modeling information required to support the proposed revision including supporting documentation	met	"Final Revised Background Information," June 13, 2001, pp. 6-8.



<b>TABLE 2-2</b> <b>COMPLETENESS DETERMINATION FOR THE APRIL 26</b> <b>AND JUNE 13, 2001 SUBMITTALS</b> <b>OF THE AGRICULTURAL BEST MANAGEMENT PRACTICES</b>		
<b>THIS COMPLETENESS CRITERION...</b>	<b>IS...</b>	<b>BY THE SUBMITTAL IN...</b>
Evidence, where necessary, that emission limitations, are based on continuous emission reduction technology	N/A	-----
Evidence that the plan contains emission limitations, work practice standards and record keeping/ reporting requirements, where necessary, to ensure emission levels	met	A.R.S. R18-2-611 I.
Compliance/enforcement strategies including how compliance will be determined in practice	met	"Final Revised Background Information," June 13, 2001, pp. 33-34.
Special economic and technological justifications required by applicable EPA policies, or an explanation of why such justifications are not necessary	met	BACM/MSM analysis: "Final Revised Background Information," June 13, 2001, pp. 9-27.
Plan addresses the elements required by the Act and EPA policy for serious area PM-10 plans	met	See Table 2-3 below.

<b>TABLE 2-3</b> <b>SERIOUS AREA REQUIREMENTS IN THE</b> <b>REVISED MAG SERIOUS AREA PM-10 PLAN AND BMP PLAN</b>		
<b>THIS SERIOUS AREA PLAN REQUIREMENT...</b>	<b>IS...</b>	<b>IN THE PLAN AT THIS LOCATION...</b>
<b>Emissions inventory</b>		
Base year emissions inventory		
- 24 hour standard	included	MAG plan, Appendix C, Exhibit 3, Chapter 3, Microscale plan, Appendix A, Chapters 4 & 6.
- annual standard	included	MAG plan, pp. 3-2 thru 3-5 and Appendix A, Exhibit 6
<b>Modeling inventory</b>		
- 24 hour standard	included	MAG plan, Appendix C, Exhibit 3, Chapter 3, Microscale plan, Appendix A, Chapters 4 & 6.
- annual standard	included	MAG plan, Appendix A, Exhibit 7, Chapter II
<b>Projected year inventories</b>		
- 24 hour standard	included	MAG plan, Appendix C, Exhibit 3, page 3-2, "Final Revised Background Information," pp. 30-31 and "Technical Support Document for Quantification of Agricultural Best Management Practices," URS and ERG, June 8, 2001.
- annual standard	included	MAG plan, Appendix A, Exhibit 7, Chapters II and V
<b>Air Quality Monitoring</b>		
Air Quality Data	included	MAG plan, pp. 3-6 thru 3-15 and Appendix A, Exhibit 8, Microscale plan, Appendix A, Chapter 3.
Air Monitoring Network	included	MAG plan, pp. 3-6 & 3-7, Microscale plan, Appendix A, Chapters 2 & 3.
<b>RACM/BACM Analysis</b>		
RACM/BACM analysis		
- 24 hour standard	included	MAG plan, Chapter 9, "Final Revised Background Information," pp. 9-27, Microscale plan, Chapter 4.
- annual standard	included	MAG plan, Chapter 9, "Final Revised Background Information," pp. 9-27.
BACM criteria		

<b>TABLE 2-3</b> <b>SERIOUS AREA REQUIREMENTS IN THE</b> <b>REVISED MAG SERIOUS AREA PM-10 PLAN AND BMP PLAN</b>		
<b>THIS SERIOUS AREA PLAN REQUIREMENT...</b>	<b>IS...</b>	<b>IN THE PLAN AT THIS LOCATION...</b>
- 24 hour standard	included	Criteria given throughout MAG plan, Chapter 9
- annual standard	included	Criteria given throughout MAG plan, Chapter 9
Available measures	included	MAG plan, pp. 5-5 thru 5-89 and Appendix B, Exhibits 5, 6 and 8, "Final Revised Background Information," pp. 10-17, Microscale plan, Chapter 4 and Appendix B.
Selected measures	included	MAG plan, Chapter 6, "Final Revised Background Information," p. 17, Microscale plan, Chapter 5.
Adopted measures	included	MAG plan, Chapter 7, "Final Revised Background Information," p. 17, Microscale plan, Chapter 5.
Justifications for rejecting measures	included	MAG plan, Chapter 9 and individual commitments by local jurisdictions in Chapter 12, "Final Revised Background Information," pp.18 - 26.
<b>Attainment Demonstration</b>		
Base year modeling		
- 24 hour standard	included	MAG plan, p. 8-5 and Appendix C, Exhibit 3, pp. 3-7 to 3-9, "Final Revised Background Information," p. 17, Microscale plan, Chapter 6.
- annual standard	included	MAG plan, pp. 8-1 to 8-5, Appendix A, Exhibit 7, Chapter III
Future year modeling		
- 24 hour standard	included	MAG plan, p. 8-12 and Appendix C, Exhibit 3, pp. 3-7 to 3-9, "Final Revised Background Information," pp. 6-8, Microscale plan, Appendix A, Chapters 4 & 6.
- annual standard	included	MAG plan, pp. 8-5 to 8-7, pp 8-11 to 8-13, Appendix A, Exhibit 7, Chapter III
Attainment measures		
- 24 hour standard	included	MAG plan, Appendix C, Exhibit 3, p. 3-9, "Final Revised Background Information," pp 6-8, Microscale plan, Chapters 5 & 6..
- annual standard	included	MAG plan, pp. 8-7 to 8-9, Appendix A, Exhibit 7, Chapter V

<b>TABLE 2-3</b> <b>SERIOUS AREA REQUIREMENTS IN THE</b> <b>REVISED MAG SERIOUS AREA PM-10 PLAN AND BMP PLAN</b>		
<b>THIS SERIOUS AREA PLAN REQUIREMENT...</b>	<b>IS...</b>	<b>IN THE PLAN AT THIS LOCATION...</b>
Estimation of reductions from attainment measures		
- 24 hour standard	included	MAG plan, Appendix C, Exhibit 3, p. 3-9, "Final Revised Background Information," p. 6-8, Microscale plan, chapter 6.
- annual standard	included	MAG plan, pp. 8-7 to 8-9, Appendix A, Exhibit 7, Chapter V
Impracticability demonstration		
- 24 hour standard	included	MAG plan, pp. 10-3 to 10-5 and Appendix C, Exhibit 3, p. 3-8.
- annual standard	included	MAG plan, pp 8-10 to 8-11, pp. 10-7 to 10-8
<b>Milestone Demonstration/RFP</b>		
Milestone demonstration/RFP		
- 24 hour standard	included	"Final Revised Background Information," pp. 30-31, Microscale plan, Chapter 6.
- annual standard	included	MAG plan, pp. 8-19.
<b>Attainment Date Extension Request (24 hr and Annual Standard)</b>		
Request	included	MAG plan, p. 10-2.
Implement SIP	included	MAG plan, p. 10-10 to 10-24.
Most expeditious attainment date		
- 24 hour standard	included	MAG plan, pp. 8-18, Appendix C, Exhibit 4.
- annual standard	included	MAG plan, pp. 8-18.
Most stringent measures analysis	included	MAG plan, pp. 10-25 to 10-47, Appendix C, Exhibit 4 "Final Revised Background Information," pp. 9-27.
Nature and extent of PM-10 problem	included	MAG plan, pp. 10-47 to 10-54
Population exposure	included	MAG plan, pp. 10-54 to 10-60

<b>TABLE 2-3</b> <b>SERIOUS AREA REQUIREMENTS IN THE</b> <b>REVISED MAG SERIOUS AREA PM-10 PLAN AND BMP PLAN</b>		
<b>THIS SERIOUS AREA PLAN REQUIREMENT...</b>	<b>IS...</b>	<b>IN THE PLAN AT THIS LOCATION...</b>
Toxic exposure	included	MAG plan, pp. 10-60 to 10-64
Economic and technological feasibility of measures	included	MAG plan, pp. 10-61 to 10-64, pp. 5-1 thru 5-4, Appendix C, Exhibit 4
<b>Other Requirements</b>		
Contingency measures	included	MAG plan, pp. 8-16 to 8-18, "Final Revised Background Information," pp. 27-31.
Conformity budget	included	MAG plan, pp. 8-13 to 8-16

## Section 3 -- The Transportation Budget Adequacy Determination

### *Transportation Conformity and the Process for Determining the Adequacy of Transportation Conformity Budgets*

Section 176(c) of the Clean Air Act requires that federally funded or approved transportation plans, programs, and projects in nonattainment areas “conform” to the area’s air quality implementation plans. Conformity ensures that federal transportation actions do not worsen an area’s air quality or interfere with its meeting the air quality standards. We have issued a conformity rule that establishes the criteria and procedures for determining whether or not transportation plans, programs, and projects conform. See 40 CFR part 93, subpart A.

One of the primary tests for conformity is to show transportation plans and improvement programs will not cause motor vehicle emissions higher than the levels needed to make progress toward and to meet the air quality standards. The motor vehicle emissions levels needed to make progress toward and to meet the air quality standards are set in the area’s air quality implementation plans and are known as the “emissions budget for motor vehicles.” Emissions budgets are established for specific years and specific pollutants. See 40 CFR 93.118(a).

Before an emissions budget in a submitted SIP revision may be used in a conformity determination, we must first determine that it is adequate. The criteria by which we determine adequacy of submitted emission budgets are outlined in conformity rules in 40 CFR 93.118(e)(4).

In order to provide opportunity for the public input on the determination of whether a particular transportation conformity budget is adequate, we follow the following process:

- Notification of SIP submission: Within 10 days after a control strategy SIP or maintenance plan is formally received,<sup>1</sup> we notify the public by posting a notice on EPA’s Office of Mobile Sources website ([www.epa.gov/oms/transp/conform/currsubs.htm](http://www.epa.gov/oms/transp/conform/currsubs.htm)) and by notifying those who have previously requested notification of the SIP’s submission. The website provides the Regional contact information so that interested parties can arrange or discuss notification processes. The website also includes information on how to obtain copies of the SIP.
- Public comment: A 30-day public comment period commences immediately upon the website posting under two circumstances: (1) if the state has made the SIP electronically available to the public via a website, electronic bulletin board, etc.; or (2) if no one has

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<sup>1</sup> The control strategy SIPs that must have motor vehicle emissions budgets for conformity are 15 percent and 9 percent rate of progress plans (an ozone requirement) and attainment demonstrations.

requested copies of the SIP within 15 days after the date of the posting notification. If someone does request a copy of the SIP and we receive the request within the first 15 days, the 30-day public comment period does not start until the date that we mail the copy. The website states when the public comment period begins and ends. If someone requests a copy of the SIP, we update the website to reflect any extension of the public comment period.

- EPA's adequacy determination: We issue our adequacy determination, including any response to comments, by posting it on EPA's Office of Mobile Sources website ([www.epa.gov/oms/transp/conform/pastsips.htm](http://www.epa.gov/oms/transp/conform/pastsips.htm)) and by mailing it to requesters. We also announce the determination in the Federal Register. The adequacy determination takes effect 15 days after publication in the Federal Register. Adequate budgets must be used in future conformity determinations; inadequate budgets cannot be used.

#### ***Adequacy of the Transportation Conformity Budget in the Phoenix serious area PM-10 plan***

The Phoenix serious area plan establishes a mobile source emissions budget of 59.7 mtpd. This regional budget is applicable for both the annual and 24-hour PM-10 standards. The on-road mobile portion of the budget, which includes emissions from re-entrained dust, vehicle exhaust, and travel on unpaved roads, is 58.6 mtpd. The road construction portion of the budget is 1.1 mtpd. MAG plan, p. 8-13.

We have found adequate for transportation conformity purposes the mobile source emission budget in the revised MAG plan, received February 23, 2000. As a result of our adequacy finding, the Maricopa Association of Governments and the Federal Highway Administration are required to use this budget in future conformity analyses. We notified MAG, FHWA and ADOT of the conformity adequacy budget finding via letter, on March 29, 2000. We published this finding in the Federal Register on April 6, 2000. 65 FR 18101. Our adequacy determination will become effective 15 days after the Federal Register announcement.

We posted notice of receipt of the draft revised MAG plan on January 26, 2000. We received no requests for copies of the plan. The comment period was expected to close on February 25, 2000. However, the comment period on the draft plan was extended to March 1, 2000 due to a temporary shutdown of Internet access to the public near the end of the comment period. We received no comments on the emissions budget.

<b>TABLE 3-1</b> <b>TRANSPORTATION CONFORMITY ADEQUACY REVIEW OF THE</b> <b>REVISED MAG SERIOUS AREA PM-10 PLAN (FEBRUARY 2000)</b>			
TRANSPORTATION REVIEW CRITERIA		IS CRITERION SATISFIED? Y/N	REFERENCE IN SIP DOCUMENT / COMMENTS
40 CFR § 93.118(e)(4)(i)	The plan was endorsed by the Governor (or designee) and was subject to a public hearing.	Y	The February 16, 2000 transmittal letter from ADEQ to Felicia Marcus references A.R.S. § 49-404 and § 49-406 which delegates authority to ADEQ from the governor to adopt and submit plans. Appendix D, Exhibit 1: (Volume 4) contains documentation of a public hearing on the plan on Monday, January 31, 2000.
40 CFR § 93.118(e)(4)(ii)	The plan was developed through consultation with federal, state and local agencies; full implementation plan documentation was provided and EPA's stated concerns, if any, were addressed.	Y	The process used for consultation with federal, state and local agencies and the public is described and documented in Chapter 11, Public Participation, of the plan. Appendix D, Exhibit 1: (Volume 4) contains the actual public comments received on the plan and responses to those comments. The responses adequately address all comments received.
40 CFR § 93.118(e)(4)(iii)	The motor vehicle emission budget(s) is clearly identified and precisely quantified.	Y	The motor vehicle budget is clearly identified and precisely quantified on page 8-13 of the plan.



<b>TABLE 3-1</b> <b>TRANSPORTATION CONFORMITY ADEQUACY REVIEW OF THE</b> <b>REVISED MAG SERIOUS AREA PM-10 PLAN (FEBRUARY 2000)</b>			
40 CFR § 93.118(e)(4)(iv)	The motor vehicle emissions budget(s), when considered together with all other emission sources, is consistent with applicable requirements for reasonable further progress, attainment, or maintenance (whichever is relevant to the given plan).	Y	Chapter 8, Demonstration of attainment status, describes how the level of emissions contained in the motor vehicle budget, with all other emission sources, will show attainment of the standards by December 31, 2006 with a peak annual concentrations of 49.8 µg/m <sup>3</sup> annual and a peak 24-hour concentration of 149.3 µg/m <sup>3</sup> . Attainment is based on reductions from Maricopa County's Rule 310 and Rule 310.01, paving of unpaved roads, and sweeping of paved roads, and commitments to adopt controls on agricultural emissions.
40 CFR § 93.118(e)(4)(v)	The plan shows a clear relationship between the emissions budget(s), control measures and the total emissions inventory.	Y	The emission inventory for all point, area and motor vehicle, and their relation to control measures, is described on pages 8-12 through 8-16.

**TABLE 3-1**  
**TRANSPORTATION CONFORMITY ADEQUACY REVIEW OF THE**  
**REVISED MAG SERIOUS AREA PM-10 PLAN (FEBRUARY 2000)**

40 CFR § 93.118(e)(4)(vi)	Revisions to previously submitted control strategy or maintenance plans explain and document any changes to any previous submitted budgets and control measures; impacts on point and area source emissions; any changes to established safety margins (see 93.101 for definition), and reasons for the changes (including the basis for any changes to emission factors or estimates of vehicle miles traveled).	Y	The previously submitted budget was found inadequate on 12/1/99. The emission inventory and motor vehicle budgets in this revised PM-10 Plan have been modified to reflect changes to assumptions in rule effectiveness and additional controls to unpaved and paved roads.
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### ***Approval of the Transportation Conformity Budget***

As stated in the May 14, 1999, guidance, our adequacy review is not to be used to prejudge our ultimate approval or disapproval of the submitted SIPs. The adequacy process was developed to give transportation agencies the ability to use emission budgets, once deemed adequate, for conformity determinations before we have made a final determination on the approvability of the SIP. It was recognized that considerable time is needed for us to complete rulemaking to approve or disapprove a SIP. Thus the 90-day adequacy process was developed to give areas direction regarding the appropriateness of the conformity budgets.

Once deemed adequate, a transportation conformity budget can be used until replaced by another budget, for the same pollutant, CAA requirement and time frame that is deemed adequate or approvable. However, once a plan has been approved, the conformity emissions budget cannot be replaced by another budget for the same pollutant, CAA requirement and time frame unless the new budget comes from an approved SIP.

We are approving the attainment and reasonable further progress demonstrations for both the 24-hour and annual standards that are in the Phoenix serious area PM-10 plan. The transportation conformity budget in the Phoenix serious area plan is derived from these demonstrations and is consistent with them. Therefore, we are approving the a regional budget of 59.7 mtpd for both the annual and 24-hour standards. The on-road mobile portion of the budget, which includes emissions from re-entrained dust, vehicle exhaust, and travel on unpaved roads, is 58.6 mtpd. The road construction portion of the budget is 1.1 mtpd. MAG plan, p. 8-13.

## Section 4 – CAA & EPA Policy Requirements for Serious Area PM-10 Plans

In this section, we discuss the legal basis for separately proposing action on the MAG plan's compliance with the CAA requirements for the annual and for the 24-hour PM-10 standards. We also provide an overview of the Clean Air Act requirements for serious area PM-10 plans. Next, we discuss in more detail the Act's requirement for best available control measures (BACM) in section 189(b)(1)(B). Finally, we present our preliminary interpretation of the attainment date extension provisions in CAA section 188(e).

We first presented our preliminary interpretation of the attainment date extension provision in our proposed approval of the annual standard provisions. See 65 FR 19964, 19967. Based on comments we received on it during the comment period for that proposal, we have clarified certain aspects of the policy but have made no substantive changes to it and presented again in the proposal for the 24-hour standard. See 66 FR 20252, 20281. We fully respond to all comments in section 7 of this TSD.

On March 29, 2001, the Ninth Circuit handed down its decision in *Ober v. Whitman* 243 F.3d 1190 (9th Cir. 2001) (*Ober II*). *Ober II* was a challenge to our exempting de minimis source categories from the reasonably available control measures requirement in our 1998 PM-10 moderate area federal implementation plan (FIP) for the Phoenix area. The court upheld our authority to do so and our specific application of the de minimis principle in the 1998 FIP. We discuss below the effect of the *Ober II* decision on our interpretation of the CAA's requirement for BACM and most stringent measures.

### *Separating Our Proposed Rulemakings on the Annual and 24-hour Standards*

There are two PM-10 NAAQS, an annual standard of 50  $\mu\text{g}/\text{m}^3$  and a 24-hour standard of 150  $\mu\text{g}/\text{m}^3$ . The two PM-10 standards are independent and must be addressed independently by states in their SIPs. This independence was highlighted by the Ninth Circuit in *Ober v. EPA*, 84 F.3d 304 (9th Cir. 1996) (*Ober I*). *Ober I* involved a challenge to our approval of the 1991/93 moderate area PM-10 plan for the Phoenix metropolitan area. Arizona submitted the plan to address the moderate area planning requirements for both the annual and 24-hour PM-10 standards. We reviewed the plan and approved it as fully meeting the requirements of the Act for PM-10 moderate nonattainment areas; that is, we approved it because we determined that it adequately addressed the planning requirements for both standards because it showed the impracticability of attaining the annual standard.<sup>2</sup>

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<sup>2</sup> We argued that because the 1991/93 plan conclusively demonstrated the impracticability of attainment of the annual standard in the Phoenix area by the moderate area attainment date, the area would be reclassified to serious and therefore a separate demonstration

Ober challenged the approval on several grounds, one of which was the plan's failure to address the CAA planning requirements separately for each PM-10 standard. *Ober I* at 308. The court held that the Act requires an implementation plan to address each of PM-10 standards independently:

The general provisions of the Clean Air Act repeatedly emphasize that implementation plans must provide for attainment of the NAAQS as expeditiously as practicable. For PM-10, the EPA promulgated two separate NAAQS—the annual standard and the 24-hour standard—which differ in the following respects. First, the 24-hour standard offers protection against dangerous short-term exposures to high PM-10 levels, a protection that is distinct from the protection against chronic degradation in lung function provided by the annual standard. Second, the sources of PM-10 violations differ for the annual and the 24-hour: violations of the 24-hour standard are generally caused by localized sources such as construction projects, whereas violations of the annual standard tend to be caused by more diverse, dispersed sources. Third, control measures differ in effectiveness for the 24-hour standard and the annual standard.

*These differences emphasize the importance of viewing PM-10's two NAAQS individually and of requiring independent treatment of them in an implementation plan....Such independent treatment furthers the Clean Air Act's goals of protecting health and achieve clean air.*

*Ober I* at 309 (emphasis added).

In reviewing the specifics of Arizona's moderate area plan and our actions on that plan, the court determined that Arizona's moderate PM-10 plan failed to treat the standards independently and thus we erred in approving the plan as sufficient to meet the Act's requirements for moderate PM-10 areas. *Ober I* at 311 and 309. In making these determinations, the court was objecting, not to our failure to act on both standards together, but to our effectively waiving Arizona's duty to meet the moderate area requirements for the 24-hour standard based on the demonstration that it was impracticable to attain the annual standard. As a remedy, the court remanded the approval to us and ordered us to require Arizona to submit separate demonstrations of the implementation of all RACM, attainment, and reasonable further progress for the 24-hour standard. *Ober I* at 316.

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for the 24-hour standard was unnecessary: "EPA disagrees that the impracticability of meeting both standards must be demonstrated....if the SIP demonstrates that even with the implementation of RACM it cannot attain any one of the standards (annual or 24-hour) by December 31, 1994, then it has demonstrated that PM-10 attainment is impracticable." See 60 FR 18010, 18016.

If the CAA requires states treat each PM-10 standard independently in their implementation plans, then we also must treat each PM-10 standard independently when reviewing the plans' compliance with the Clean Air Act. Therefore, it is necessary for us to review the MAG plan's compliance with the CAA requirements as they apply to the annual standard and again review them with the CAA requirements as they apply to the 24-hour standard. There is no mandate in the Act or *Ober I* nor any technical reason that we conduct these reviews concurrently, even if Arizona had submitted a single document containing SIP revisions for both standards since, effectively, we must treat it as if it contained two separate plans.<sup>3</sup>

We proposed to approve the Phoenix serious area plan's provisions for attaining the annual standard on April 13, 2000 (65 FR 19964) and its provisions for attaining the 24-hour standard on October 2, 2001 (66 FR 20252). We chose not to propose action on the 24-hour standard provisions of the Phoenix plan concurrently with our April 2000 proposed actions on the annual standard provisions because the State was then still working on quantifying emission reductions from the best management practices (BMPs) intended to reduce fugitive dust from agricultural sources. Attainment of the 24-hour standard in the Phoenix area, unlike the annual standard, depends in part on emission reductions from these BMPs. Once Arizona quantified the reductions from the BMPs, it revised the 24-hour attainment and reasonable further progress demonstrations and resubmitted them to us in final form in June 2001. We do not believe it would have been an efficient use of our resources to act on the 24-hour provisions until Arizona submitted the revisions.

### ***Planning Requirements for Serious PM-10 Nonattainment Areas***

States with PM-10 nonattainment areas that have been reclassified to serious because of a failure to attain by the moderate area attainment date must submit within 18 months of the reclassification (as set in section 189(b)(2)), revisions to its implementation plan that address each of the following CAA requirements:

- (a) provisions to assure that the best available control measures (BACM), including best available control technology (BACT) for stationary sources, for the control of PM-10

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<sup>3</sup> Arizona has, in fact, submitted four distinct documents to address the serious area planning requirements for the 24-hour and annual standards. These documents are the 1997 Microscale plan, the 1997 control measure submittal, the 2000 revised MAG plan, and the 2001 BMP TSD. It has also made several other submittals containing the rules relied on in the plan. We have already acted on the Microscale plan, a plan that addressed only the 24-hour standard.

shall be implemented no later than 4 years after the area is reclassified (CAA section 189(b)(1)(B));<sup>4</sup>

- (b) provisions to assure implementation of best available control technology (BACT) on major stationary sources of PM-10 precursors no later than 4 years after the area is reclassified except where EPA has determined that such sources do not contribute significantly to exceedances of the PM-10 standards (CAA section 189(e));
- (c) a demonstration (including air quality modeling) that the plan will provide for attainment as expeditiously as practicable but no later than December 31, 2001 or where the State is seeking an extension of the attainment date under section 188(e), a demonstration that attainment by December 31, 2001 is impracticable and that the plan provides for attainment by the most expeditious alternative date practicable (CAA sections 188(c)(2) and 189(b)(1)(A));
- (d) quantitative milestones which are to be achieved every 3 years and which demonstrate reasonable further progress (RFP) toward attainment by the applicable attainment date (CAA sections 172(c)(2) and 189(c)); and
- (e) a comprehensive, accurate, current inventory of actual emissions from all sources of PM-10 (CAA section 172(c)(3)).

The 18 month deadline is set in CAA section 189(b)(2).

Within 3 years of reclassification, the State must also submit contingency measures as required by CAA section 172(c)(9). The Act does not specify a submittal date for these contingency measures, so we set it under our authority to set submittal dates in CAA 172(b). See 59 FR 41998, 42015 (August 16, 1994).

Serious area PM-10 plans must also meet the general requirements applicable to all SIPs including reasonable notice and public hearing under section 110(l), necessary assurances that the implementing agencies have adequate personnel, funding and authority under section 110(a)(2)(E)(i) and 40 CFR 51.280; and the description of enforcement methods as required by 40 CFR § 51.111.

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<sup>4</sup> When a moderate area is reclassified to serious, the requirement to implement RACM in section 189(a)(1)(C) remains and is augmented by the requirement to implement BACM. Thus, a serious area PM-10 plan must, in addition to BACM, provide for the implementation of RACM as expeditiously as practicable to the extent that the RACM requirement has not be satisfied in the area's moderate area plan.

We have issued a *General Preamble*<sup>5</sup> and *Addendum to the General Preamble*<sup>6</sup> describing our preliminary views on how the Agency intends to review SIPs submitted to meet the Clean Air Act's requirements for PM-10 plans. The *General Preamble* mainly addresses the requirements for moderate areas and the *Addendum*, the requirements for serious areas. We have also issued other guidance documents related to PM-10 plans or provisions of those plans. These other guidance documents will be cited as necessary when we discuss the details of the MAG plan.

### ***Implementation of Best Available Control Measures***

Under section 189(b)(2), serious area PM-10 plans must provide assurances that BACM will be implemented in the area no later than four years after the area is reclassified as serious. For Phoenix, the BACM implementation deadline was June 10, 2000.

The Act does not define what level of control constitutes a BACM-level of control. In guidance, we have defined it to be, among other things, the maximum degree of emission reduction achievable from a source or source category which is determined on a case-by-case basis, considering energy, economic and environmental impacts. *Addendum* at 42010. This level of control is dependent on the deadline by which BACM must be implemented.<sup>7</sup>

We also considered a BACM-level control as going beyond existing RACM-level controls, such as expanding use of RACM (e.g, paving more miles of unpaved roads). *Addendum* at 42013. Additionally, we believe that BACM should emphasize prevention rather than remediation (e.g., preventing track out at construction sites rather than simply requiring clean up of tracked-out dirt). *Addendum* at 42013.

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<sup>5</sup> "State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990," 57 FR 13498 (April 16, 1992) and 57 FR 18070 (April 28, 1992).

<sup>6</sup> "State Implementation Plans for Serious PM-10 Nonattainment Areas, and Attainment Date Waivers for PM-10 Nonattainment Areas Generally; Addendum to the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990," 59 FR 41998 (August 16, 1994)

<sup>7</sup> We have long held that an otherwise available measure is not reasonable if it cannot be implemented on a schedule that will advance the attainment date. See, for example, 57 FR 13498, 15560 (April 16, 1992). See, also *Delaney v. EPA* 898 F.2d 695 (9th Cir. 1990) which required the adoption of "all available control measures" to attain "as soon as possible" and not simply all available control measures. The most clear example of this is a measure that cannot be implemented until after the applicable attainment date.



BACM is the best available *control measure*. A control measure is a combination of the measure's applicability and its control requirement, that is, what sources in the category are subject to the measure and what does the measure require the sources to do to reduce emissions.<sup>8</sup> Both these elements must be specified before the measure's level of control (i.e., its stringency) can be determined, thus in setting a BACM, a state must specify both the measure's control requirement and its applicability. The control requirement alone is not sufficient.

BACM must be applied to each significant (i.e., non-de minimis) source category. *Addendum at 42011.* In guidance, we have established a presumption that a "significant" source category is one that contributes  $5 \mu\text{g}/\text{m}^3$  or more of PM-10 to a location of 24-hour violation. *Addendum at 42011.* However, whether the threshold should be lower than this in any particular area depends upon the specific facts of that area's nonattainment problem. Specifically, in areas that are demonstrating attainment by December 31, 2001, it depends on whether requiring the application of BACM on source categories below a proposed de minimis level would meaningfully expedite attainment. In areas that are claiming the impracticability of attainment by December 31, 2001, it depends upon whether requiring the application of BACM on source categories below a proposed de minimis level would make the difference between attainment and nonattainment by the serious area deadline of December 31, 2001.<sup>9</sup>

The recent decision by the Ninth Circuit Court of Appeals in *Ober II* supports the use of a de minimis exemption in BACM analyses. *Ober II* was a challenge to our 1998 PM-10 moderate area FIP for the Phoenix area in which we exempted from the RACM requirement, source categories with de minimis impacts on PM-10 levels. In the FIP, we established a de minimis threshold of  $1 \mu\text{g}/\text{m}^3$  for the annual standard and  $5 \mu\text{g}/\text{m}^3$  for the 24-hour standard, borrowing these thresholds from our new source review program for attainment areas to as a starting point in the de minimis analysis. In evaluating the appropriateness of these thresholds, we showed that they did not eliminate controls that would make the difference between attainment and

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<sup>8</sup> An example: a measure requires all unpaved roads with ADT over 150 be stabilized by either paving, graveling, or treating with chemical stabilizers. The control requirement here is "stabilize using one of these three methods: paving, graveling, or chemical stabilization" and the applicability is "all unpaved roads with ADT over 150."

<sup>9</sup> This principle is best illustrated by an example: In Area A, attainment of the 24-hour standard by December 31, 2001 requires that PM-10 ambient levels at exceeding locations be reduced by  $40 \mu\text{g}/\text{m}^3$  to  $150 \mu\text{g}/\text{m}^3$ . After application of BACM to all source categories above the proposed de minimis level, PM-10 levels are reduced by  $32 \mu\text{g}/\text{m}^3$ . BACM on the proposed de minimis source categories would reduce levels by a further  $3 \mu\text{g}/\text{m}^3$ , but still leaves ambient levels  $5 \mu\text{g}/\text{m}^3$  short of the reduction needed to show attainment. Since application of BACM to the proposed de minimis source categories still leaves ambient levels above the attainment level of  $150 \mu\text{g}/\text{m}^3$ , the proposed de minimis level is appropriate.

nonattainment by the applicable attainment deadline, and therefore were the appropriate thresholds. See 63 FR 41326, 41330 (August 3, 1998).

In its ruling, the court held that we have the power to make de minimis exemptions to control requirements under the Clean Air Act and that our use of the de minimis levels from the NSR program was appropriate. *Ober II* at 1195 and 1197. In addition, the court determined that it was appropriate for us to use, as a criterion for identifying de minimis sources, whether controls on the sources would result in attainment by the attainment deadline. *Ober II* at 1198. *Ober II* dealt with a de minimis exemption from the RACM requirement, but its reasoning applies equally to the BACM requirement.

We have outlined in our guidance a multi-step process for identifying BACM. *Addendum* at 42010-42014. The steps are:

1. develop a detailed emissions inventory of PM-10 sources and source categories,
2. model to evaluate the impact on PM-10 concentrations over the standards of the various sources and source categories to determine which are significant,
3. identify potential BACM for significant source categories including their technological feasibility, costs, and energy and environmental impacts when it bears on the BACM determination, and
4. provide for the implementation of the BACM or provide a reasoned justification for rejecting any potential BACM.

### ***Implementation of Reasonably Available Control Measures***

When a moderate area is reclassified to serious, the requirement to implement RACM in section 189(a)(1)(C) remains. Thus, a serious area PM-10 plan must also provide for the implementation of RACM as expeditiously as practicable to the extent that the RACM requirement has not been satisfied in the area's moderate area plan.

However, we do not normally conduct a separate evaluation to determine if a serious area plan's measures also meet the RACM requirements as interpreted by us in the *General Preamble* at 13540. This is because in our serious area guidance (*Addendum* at 42010), we interpret the BACM requirement, as generally subsuming the RACM requirement (i.e. if we determine that the measures are indeed the "best available," we have necessarily concluded that they are "reasonably available"). Therefore, a separate analysis to determine if the measures represent a RACM level of control is not necessary. Consequently, our approval of the Phoenix plan's provisions relating to the implementation of BACM is also a finding that the plan provides for the implementation of RACM.

### ***Extension of the Attainment Date beyond 2001***

#### **The Clean Air Act Requirements for Attainment Date Extensions**

Section 188(e) of the Act allows us to extend the attainment date for a serious area for up to five years beyond 2001 if attainment by 2001 is impracticable. However, before we may grant an extension of the attainment date, the State must first:

1. apply to us for an extension of the PM-10 attainment date beyond 2001,
2. demonstrate that attainment by 2001 is impracticable,
3. have complied with all requirements and commitments applying to the area in its implementation plan,
4. demonstrate to our satisfaction that its serious area plan includes the most stringent measures that are included in the implementation plan of any state and/or are achieved in practice in any state and are feasible for the area, and
5. submit a demonstration of attainment by the most expeditious alternative date practicable.

In determining whether to grant an extension and the appropriate length of the attainment date extension, we may consider:

1. the nature and extent of the nonattainment problem,
2. the types and numbers of sources or other emitting activities in the area (including the influence of uncontrollable natural sources and international transport),
3. the population exposed to concentrations in excess of the standard,
4. the presence and concentration of potentially toxic substances in the mix of particulate emissions in the area, and
5. the technological and economic feasibility of various control measures.

Under the Act, we may grant only one extension for an area and that the extension cannot be for more than 5 years after 2001; that is, the extended attainment date can be no later than December 31, 2006.

#### **EPA's Policy on Attainment Date Extensions**

This interpretation is our preliminary view of the section 188(e) requirements and we again request comment on it. In addition, we emphasize that these are our preliminary views and they are subject to modification as we gain more experience reviewing extension requests from other areas.

In the following sections we discuss the five requirements a State must meet before we can consider granting an attainment date extension.

### **1. Apply for an attainment date extension**

The State must apply for an extension of the attainment deadline under section 188(e). The request should be accompanied by the SIP submittal containing the most expeditious alternative attainment date demonstration required by CAA section 189(b)(1)(A)(ii). The state must be provided the public with reasonable notice and a hearing on the request before it is sent to EPA.

It is clear from the wording of section 188(e) that an extension application is not a SIP revision. Under section 188(e), a state *applies* for an extension request: “upon application by the State...” and we *grant* the request: “The Administrator may grant at most one such extension..” Wording later in section 188(e) also makes clear that the application for an extension is distinct from the SIP revision that must accompany it: “at the time of the such application, the State must submit a revision to the implementation plan that includes a demonstration of attainment by the most expeditious alternative date practicable.” This attainment demonstration is the one required by section 189(b)(1)(A)(ii).

Although extension requests are not SIP submittals per se and are therefore not subject to the requirements of the Clean Air Act and our regulations for public notice and hearing on SIP revisions. However, because they can greatly affect the content and ultimate approvability of a serious area PM-10 SIP, we believe a state must give the public an opportunity, consistent with the requirements for SIP revisions, to comment on an extension request prior to submitting it to us.

### **2. Demonstrate that attainment by 2001 is impracticable**

In order to demonstrate impracticability, the plan must show that the implementation of BACM on significant (that is, non-de minimis) source categories will not bring the area into attainment by December 31, 2001. In serious areas, BACM is required to be in place in advance of the 2001 attainment date; therefore, we believe that it is reasonable to interpret the Act to require that a state provide at least for the implementation of BACM on significant source

categories before it can claim impracticability of attainment by 2001.<sup>10</sup> This interpretation parallels our interpretation of the impracticability option for moderate PM-10 nonattainment areas in section 189(a)(1)(B). In moderate areas, RACM was required before a moderate area plan could show impracticability of attainment by 1994, the moderate area attainment date. *General Preamble* at 13544. The *Ober II* court found this approach reasonable. *Ober II* at 1198.

The statutory provision for demonstrating impracticability requires that the demonstration be based on air quality modeling. See section 189(b)(1)(A). We have established minimum requirements for air quality modeling. See discussion on air quality modeling later in this TSD.

### **3. Have complied with all requirements and commitments in its implementation plan**

We interpret this criterion to mean that the state has implemented the emissions-reducing measures in the plan revisions it has submitted to address the CAA requirements in sections 172 and 189 for PM-10 nonattainment areas.

The purpose of this criterion is to assure that a state is not receiving additional time to attain because it failed to implement already-adopted or already-committed-to control measures. Given this purpose, we believe our review under this criterion should be limited to the implementation status of control measures from earlier PM-10 plans and not be an expansive review of the implementation status of every provision in submitted implementation plans, whether or not it is an emissions-reducing measure.<sup>11</sup>

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<sup>10</sup> As described in the section on the BACM requirement, if applying BACM-level controls to one or more of the proposed de minimis source categories would result in attainment by December 31, 2001, then those categories are not de minimis (i.e., they are significant) and must have BACM applied to them. Therefore, states cannot use the de minimis exemption to BACM to avoid applying controls that would result in attainment by 2001.

<sup>11</sup> For example, CAA section 110(a) requires states to submit SIP revisions providing for, among other things, adequate authority and resources to monitor both ambient air and emissions from individual sources, to collect inventory information, to permit new and modifying sources, and to adopt and enforce air pollution control regulations. These requirements demonstrate that a state has a sufficient authority and resources to run an air pollution control program but are not themselves control measures. Thus under our interpretation of section 188(e), their implementation status is immaterial for the purposes of an extension.

As a practical matter, if a state is unable to meet the minimum program requirements in section 110(a), then it is very unlikely that it would be able to prepare an approvable PM-10 plan in the first place, let alone apply for an extension request, since the ability to collect air quality data, prepare emissions inventories, and adopt and enforce rules, etc. are all prerequisites to

We read this provision not to require the area have a fully approved plan that meets the CAA's requirements for moderate areas. We base this reading on the plain language of section 188(e) which requires the state to comply with all requirements and commitments pertaining to that area *in the implementation plan* but does not require that the state comply with all requirements pertaining to the area *in the Act*. For the same reason, we also read this provision not to bar an extension if all or part of an area's moderate area plan is disapproved or has been promulgated as a FIP or if the area has failed to meet a RFP milestone.

Part of determining whether a state has implemented its commitments and requirements in earlier plans is assessing whether the state retains the legal authority for them and is funding, staffing, and enforcing them at the level assumed or committed to in those plans. Thus any determination that the state has met its commitments and requirements in earlier plans is also a finding that it has retained its legal authority and has met its commitments regarding enforcement, funding, and staffing.<sup>12</sup>

#### **4. Demonstrate the inclusion of the most stringent measures**

The fourth extension criterion requires the State to "demonstrate to the satisfaction of the Administrator that the plan for the area includes the most stringent measures that are included in the implementation plan of any State, or are achieved in practice in any State, and can be feasibly be implemented in the area." CAA section 188(e).

The requirement for most stringent measures (MSM) is similar to the requirement for BACM. We define a BACM-level of control to be, among other things, the maximum degree of emission reduction achievable from a source or source category which is determined on a case by case basis considering energy, economic and environmental impacts. *Addendum* at 42010. The Act establishes the deadline for implementing BACM as four years after an area's reclassification to serious. CAA section 189(b)(1)(A).

We define a "most stringent measure" level of control in a similar manner: the maximum degree of emission reduction that has been required or achieved from a source or source category

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developing approvable plans.

<sup>12</sup> We only determine if a state's committed levels of legal authority, funding, staffing, and enforcement for a control measure are adequate under the CAA at the time we approve the measure into the SIP. Where we have not approved a measure in an earlier implementation plan, we are limited under section 188(e) to determining if the state has done what it said it would do rather than what the CAA arguable would have required it to do.

in other SIPs or in practice in other states and can be feasibly implemented in the area. A MSM then is a control measure that delivers this level of control.

The Act does not specify an implementation deadline for MSM. Because the clear intent of section 188(e) is to minimize the length of any attainment date extension, we believe that the implementation of MSM should be as expeditiously as practicable.

Given this similarity between the BACM requirement and the MSM requirement, we believe that determining MSM should follow a process similar to determining BACM, but with one additional step, to compare the potentially most stringent measure against the measures already adopted in the area to determine if the existing measures are most stringent:

1. develop a detailed emissions inventory of PM-10 sources and source categories,
2. model to evaluate the impact on PM-10 concentrations over the standards of the various source categories to determine which are significant for the purposes of adopting MSM,
3. identify potential most stringent measures in other implementation plans or used in practice in other states for each significant source category and for each measure determine their technological and economic feasibility for the area as necessary,
4. compare potential most stringent measures for each significant source category against the measures, if any, already adopted for that source category, and
5. provide for the adoption of any MSM that is more stringent than existing similar local measures and provide for implementation as expeditiously as practicable or, in lieu of adoption, provide a reasoned justification for rejecting the potential MSM, i.e., why such measures cannot be feasibly implemented in the area.

The MSM provision only requires that a state consider the best controls from elsewhere in the country for implementation in the area requesting an attainment date extension. It looks to see--and the results are completely dependent on--how well other areas have controlled their PM-10 sources. If other areas have not controlled a particular source or source category well, then the resulting level of control from the MSM will not be the maximum feasible level of control for that source or source category in the local area. Even if they have controlled them well, the resulting level of control may still not be the maximum feasible level because local conditions may allow a higher degree of control than has been achieved elsewhere.

The MSM provision does not require that a state consider if local sources or source categories can be controlled at a level greater than the most stringent level from other areas. In

other words, it does not require states to determine and adopt the maximum feasible level of control that could be applied to a source or a source category given local conditions and the additional implementation time afforded by an extension.

In considering the MSM provision, the inclination is to assume that there are always better controls out there than there are in the local area. This assumption is unwarranted, especially for areas that have already gone through the process of identifying and adopting BACM for their significant sources in order to meet the section 189(b)(1)(B) requirement. These areas are likely to have already evaluated the best controls from other areas and either adopted them as BACM or rejected them as not feasible for their area. As a result, the likelihood of finding substantial new controls during a MSM evaluation in one of these areas is low.<sup>13</sup>

The most promising universe of potential MSM in these areas is the measures that were rejected as BACM on de minimis grounds or because they could not be implemented by the BACM deadline. Therefore, we believe at minimum, more sources and source categories should be subject to the MSM analysis than were to the BACM analysis, by lowering the threshold for what is considered a de minimis source category and 2) any measures garnered from other areas that were rejected during the BACM analysis because they could not be implemented by the BACM-implementation deadline should be reviewed to see if they are now feasible for the area given the longer attainment date. See footnote 7.

De Minimis Thresholds. What constitutes a de minimis source category for BACM is dependent upon the specific facts of the nonattainment problem under consideration. In particular, it depends upon whether requiring the application of BACM for such sources would make the difference between attainment and nonattainment by the serious area deadline. We will use a similar approach for judging what constitutes a de minimis source category for MSM but instead of the attainment/nonattainment test, we intend to use the test of whether MSM controls on the de minimis sources would result in more expeditious attainment.

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<sup>13</sup> There is also an inclination to assume that the MSM requirement is the provision in section 188(e) that implements the Act's general strategy of offsetting longer attainment time frames with more stringent controls and therefore, the MSM requirement must be interpreted to result in the adoption of measures more stringent than BACM. We believe, however, that this offsetting function is actually served by the CAA section 189(b)(1)(A)(ii) requirement for PM-10 plans to demonstrate attainment by the most expeditious date practicable, if attainment by 2001 is impracticable. Because we are required to grant the shortest possible extension, a state must demonstrate that it has adopted the set of control measures that will result in the most expeditious date practicable for attainment. This requirement may very well require that a state adopt controls that go beyond the most stringent measures adopted or implemented elsewhere.



We would not review an MSM analysis in a plan if the plan did not demonstrate expeditious attainment since one prerequisite for granting an extension request is that the plan demonstrate attainment. Therefore, any de minimis standard for MSM that relied on the difference between attainment and nonattainment would be meaningless because no additional controls are needed for attainment beyond those already in the plan. Our responsibility under section 188(e), however, is to grant the shortest practicable extension of the attainment date by assuring the plan provides for attainment as expeditiously as practicable. Thus, one means of determining an appropriate de minimis level is to determine if applying MSM to the proposed de minimis source categories would meaningfully expedite attainment. If it did, then the de minimis level is too high, and if it did not, then the de minimis level is appropriate.

Like the RACM and BACM requirements, there is no explicit provision in the Act prohibiting the exemption from the MSM requirement for de minimis sources of PM-10 pollution. We are using here the same principles for determining when a source is considered de minimis under the MSM requirement that we used for the RACM requirement that the *Ober II* court upheld and thus we have constructed the de minimis exemption for the MSM requirement to prevent states from eliminating any controls on sources or source categories that alone or together would result in more expeditious attainment of the PM-10 standards.

Technological feasibility. In the MSM analysis, a state must evaluate the application of controls from elsewhere to sources in its own area. In many cases, these sources are already subject to local control measures. In these situations, part of determining if a control is technologically feasible is determining if the new control can be integrated with the existing controls without reducing or delaying the emission reductions from the existing control. If it cannot, then we would not, in general, consider the measure to be technologically feasible for the area unless the emission benefit of the new measure is substantially greater than the existing measure <sup>14</sup>

Economic feasibility. Because cost is rarely used to justify rejection of a measure in the MAG plan, we will not attempt to establish a general guide for evaluating when a measure is economically infeasible but instead will address the issue on a case-by-case basis as needed.

Judging stringency. The stringency of a control measure is determined primarily by a combination of its applicability and its control requirement, that is, what sources in the category are subject to the measure and what does the measure require the source to do to reduce

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<sup>14</sup> We come to this position by considering the reasonable further progress requirement to assure early emission reductions. In general, public health is better protected by achieving emission reductions early even if that results in a small loss in total reductions than delaying them to gain slightly higher reductions.

emissions. When we use the term “measure” in the context of the MSM requirement, we are referring to this combination; we are not referring to just the control requirement or to individual methods of control.<sup>15</sup>

The approach we intent to use in evaluating the selection of the most stringent among multiple measures, *i.e.*, evaluating the determination of when one control measure is more stringent than another, is:

1. If there is only a single measure applicable to a source category then we will compare the measures directly. If there are multiple control measures with diverse controls requirements applicable to a source category (e.g., tailpipe emissions are controlled through fuels, emission standards, inspection and maintenance programs, and transportation control measures) then we will compare measures with similar control requirements against one another. If several measures apply the same or very similar control requirements to a source category, that is they have the same control requirement but different applicabilities (e.g., MCESD Rule 310.01 and City and County commitments all require similar controls on unpaved roads), then we will use the collective stringency of all the measures in the stringency analysis.
2. We will review all the provisions of a rule that apply to a specific type of source (e.g., all the rule provisions that apply to vacant lots) as an inseparable measure. As discussed above a rule’s stringency is defined by a combination of its applicability and control requirements (as they apply to a single type of source). They are not separable elements that can be compared in isolation to another rule.<sup>16</sup>
3. In a MSM analysis, a measure’s stringency should be determined assuming that it is appropriately adopted, implemented and enforced. Thus, we will not use a measure’s

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<sup>15</sup> For example: a control measure requires all unpaved roads with ADT over 150 be stabilized by either paving, graveling, or chemical stabilization. The control requirement here is “stabile using one of these three methods: paving, graveling, or chemical stabilization.” The applicability is “all unpaved roads with ADT over 150.” The individual methods of control here are paving, graveling, and chemical stabilization.

<sup>16</sup> For example, South Coast Rule 403 covers vacant lots, construction sites, and agriculture among other fugitive dust sources. MCESD’s Rule 310.01 covers vacant lots and Rule 310 covers construction sites. The Arizona BMP general permit rule covers agricultural sources. Under this test we would evaluate Rule 403’s provisions for vacant lots against Rule 310.01 provisions for vacant lots; Rule 403’s provisions for construction sites against Rule 310’s provisions for construction sites; Rule 403’s provisions for agricultural sources against the BMP general permit rule’s ones.

implementation mechanisms (e.g., rule versus commitment), funding level, compliance schedule, test method,<sup>17</sup> resources available for enforcement, or other similar items as criteria for judging relative stringency.<sup>18</sup>

A state may determine which measure or measures are most stringent either qualitatively or quantitatively. It is the state's responsibility, however, to assure that any determination is well documented and persuasive.

Once a state has identified a potential most stringent measure, it must provide for the adoption of any MSM that is more stringent than existing measures and provide for implementation as expeditiously as practicable or, in lieu of providing for adoption, provide a reasoned justification for rejecting the potential MSM, i.e., why such measures cannot be feasibly implemented in the area.

Finally, we address how we view the "to the satisfaction of the Administrator" qualifier on the requirement that the State demonstrate that its plan includes the most stringent measures. The presence and wording of this qualifier indicates that Congress granted us considerable discretion in determining whether a plan in fact provides for MSM. Under the terms of section 188(e), we believe that we can still accept an MSM demonstration even if it falls short of having every MSM possible. To intuit the limits of this discretion, we again look to the overall intent of section 188(e) that we grant as short an extension as practicable and to how we have interpreted the CAA's other general control requirements, RACM and BACM.

In concrete terms, this means that when judging the overall adequacy of the MSM demonstration, we will give more weight to a failure to include MSM for source categories that contribute the most to the PM-10 problem and to the failure to include measures that could provide for more expeditious attainment and less weight to those measures for source categories that contribute little to the PM-10 problem and would not expedite attainment.

## **5. Demonstrate attainment by the most expeditious alternative date practicable**

Section 189(b)(1)(A) requires that a serious area plan demonstrate attainment

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<sup>17</sup> We would take into account a test method if it effectively sets the rule's performance standard

<sup>18</sup> However, once a State determines a measure is a feasible most stringent measure, it must convert the measure into a legally enforceable form and provide the necessary level of resources, etc. to ensure its implementation.

by the most expeditious date practicable using air quality modeling after December 31, 2001. This demonstration is the final criterion that must be met before we may grant an extension request.

There are two parts to reviewing a modeled attainment demonstration: evaluating the technical adequacy of the modeling itself, and evaluating the control measures that are relied on to demonstrate attainment.

We have established technical requirements for modeling PM-10 in SIP attainment demonstrations. Please see discussion later in this TSD on modeling requirements for PM-10 SIPs.

In evaluating the control measures relied on in the attainment demonstration, we determine whether the following are true:

1. We have approved it into the SIP or the State has submitted it to us for approval into the SIP and we have proposed it for approval..
2. It is enforceable under our SIP-enforceability standards or qualifies to be credited under our mobile source voluntary measures policy.<sup>19</sup>
3. The plan provides reasonable assurances, including funding and other resource commitments, that it will be implemented and enforced.
4. It will be implemented on the most expeditious schedule practicable.
5. The emission reductions credited to it are reasonable and consistent with the implementation resources and schedule, and for any reductions coming from mobile source voluntary measures, that they do not collectively exceed 3 percent of the total reductions needed for attainment.<sup>20</sup>

Our determination of whether the plan provides for attainment by the most expeditious date practicable will depend on whether we find that the plan provides for appropriate BACM, MSM, and any other technologically and economically feasible measures that will result in

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<sup>19</sup> *Memorandum*, Richard D. Wilson, Acting Assistant Administrator for Air and Radiation, to EPA Regional Administrators, 1 - 10, "Guidance on Incorporating Voluntary Mobile Source Emission Reduction Programs in State Implementation Plans (SIPs)," October 24, 1997.

<sup>20</sup> *Ibid.*, page 5.

attainment as expeditiously as practicable and that these measures are implemented on an expeditious schedule.

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